

10 JPR/S

09/913233

JC03 Rec'd PCT/PTO 10 AUG 2001

WO 00/47364

PCT/CA00/00128

GASKET INSTALLATION APPARATUS

Field of the Invention

This invention relates to an apparatus for installing gaskets. In particular, this invention relates to an apparatus for installing an elastomeric gasket into a channel on a component.

Background of the Invention

In an automobile engine, it is common to use an endless gasket between mating parts such as a valve cover and a cylinder head. An endless channel is provided on one or both of 10 the mating surfaces to receive and retain an endless gasket. The gasket is inserted into the channel before final assembly of the valve cover to the cylinder head.

Installation of gaskets into the endless channel can pose many problems. Traditionally, an operator starts the installation of the gasket by placing the gasket over the channel. Next, the operator starts pressing the gasket into the channel. The operator must 15 ensure that the insertion of the gasket is even. However, due to the elastomeric nature of the gasket, the operator commonly "chases" the gasket, as previously inserted portions of the gasket pop out of the channel as the uninstalled portions of the gasket are being inserted. Further, slight stretching of the gasket during installation can result in misalignment of the gasket within the channel.

20 It is known in the art to provide a flat gasket carrier which releasably receives a gasket for insertion into the endless channel. The endless channel is aligned with the gasket and direct pressure is applied to the gasket carrier to insert the gasket into the channel. However, a slight misalignment of the part with the gasket causes any misaligned portions of the gasket to buckle and remain uninjected. Furthermore, air gets trapped between the gasket and the 25 channel and tends to push the gasket out of the channel upon removal of the installation force.

Various gasket installation and assembly procedures have been proposed in the prior art. A simple approach, disclosed in U.S. Pat. No. 4,101,138, uses friction to seat an elastomeric gasket, and locating pins integral to the gasket that are slightly larger than the mating holes on the engine part, so that the gasket is force fitted into place during engine part 30 assembly. However, no provision is made for avoiding misalignment during initial installation of the gasket.

Continuing Data

This application is a 371 of PCT/CA00/00128 filed 02/10/2000, and claims benefit of 60/119,390 filed 02/10/1999.